CLAIMS

1. A qualification method for testing a radio communication system including a plurality of radio terminals, comprising:

providing a representative terminal having a machine type identical to a machine type of the plurality of radio terminals;

executing a qualification test on the representative terminal so as to determine whether or not the representative terminal can be used in a desired radio communication system from a plurality of radio communication systems;

receiving a test success message indicating that the representative terminal passed the qualification test; and

notifying the test success message to the plurality of radio terminals.

2. The method according to claim 1, wherein

the executing step determines a control sequence for controlling a radio unit of the representative terminal, by which the representative terminal can pass the qualification test, and

the receiving step receives the control sequence from the measuring step, and the notifying step notifies the received control sequence to the plurality of radio terminals.

3. The method according to claim 1, wherein the notifying step notifies the plurality of radio terminals via a base station used for the desired radio communication system.

4. The method according to claim 1, wherein the notifying step notifies the plurality of radio terminals via a service center used for the desired radio communication system.

5. The method according to claim 4, wherein the service center notifies the test success message to the plurality of radio terminals by wireless communication.

6. The method according to claim 4, wherein the service center notifies the test success message to the plurality of radio terminals by wire communication.

7. The method according to claim 1, wherein the executing step performs a qualification test for all combinations of the plurality of radio communication systems.

8. A qualification system for testing radio communications, comprising:

a plurality of radio terminals;

a representative terminal having a machine type identical to a machine type of the plurality of radio terminals;

a measuring device including a test program corresponding to a plurality of radio communication systems that can be used by the representative terminal, and configured to execute a qualification test on the representative terminal so as to determine whether or not the representative terminal can be used in a desired radio communication system from the plurality of radio communication systems; and

test success notifying device configured to receive a test success message indicating that the representative terminal passed the qualification test, and configured to notify the test success message to the plurality of radio terminals.

9. The system according to claim 8, wherein each of the plurality of radio terminals

includes:

a radio unit configured to convert an analog radio signal into a digital signal;

a radio unit controller configured to control the radio unit;

a resource configured to communicate the digital signal with the radio unit, to perform a signal processing operation on the digital signal, and to reset a function of the signal processing operation; and

a resource controller configured to manage the resource.

10. The system according to claim 8, wherein

the measuring device determines a control sequence for controlling a radio unit of the representative terminal, by which the representative terminal can pass the qualification test, and

the test success notifying device receives the control sequence from the measuring step, and notifies the received control sequence to the plurality of radio terminals.

11. The system according to claim 8, wherein the test success notifying device notifies the plurality of radio terminals via a base station used for the desired radio communication system.

12. The system according to claim 8, wherein the test success notifying device notifies the plurality of radio terminals via a service center used for the desired radio communication system.

13. The system according to claim 12, wherein the service center notifies the test

success message to the plurality of radio terminals by wireless communication.

14. The system according to claim 12, wherein the service center notifies the test success message to the plurality of radio terminals by wire communication.

15. The system according to claim 8, wherein the measuring device comprises:

a memory configured to store information indicative of an arrangement of resources in the representative terminal; and

a controlling unit configured to control the measuring device, and

wherein the controlling unit performs a qualification test

while the controlling unit sequentially changes both the information stored in the memory and the test program.

16. The system according to claim 8, wherein the measuring device performs a qualification test for all combinations of the plurality of radio communication systems.

17. A computer program product for performing a qualification test of a radio communication system including a plurality of radio terminals, and a representative terminal having a machine type identical to a machine type of the plurality of radio terminals, the computer program product comprising:

a first computer code configured to execute a qualification test on the representative terminal so as to determine whether or not the representative terminal can be used in a desired radio communication system from a plurality of radio communication systems;

a second computer code configured to receive a test success message indicating that

the representative terminal passed the qualification test; and

a third computer code configured to notify the test success message to the plurality of radio terminals.

18. The computer program product according to claim 17, wherein

the first computer code determines a control sequence for controlling a radio unit of the representative terminal, by which the representative terminal can pass the qualification test, and

the second computer code receives the control sequence from the measuring step, and the third computer code notifies the received control sequence to the plurality of radio terminals.

19. The computer program product according to claim 17, wherein the third computer code notifies the plurality of radio terminals via a base station used for the desired radio communication system.

20. The computer program product according to claim 17, wherein the third computer code notifies the plurality of radio terminals via a service center used for the desired radio communication system.

21. The computer program product according to claim 20, wherein the service center notifies the test success message to the plurality of radio terminals by wireless communication.

22. The computer program product according to claim 20, wherein the service center notifies the test success message to the plurality of radio terminals by wire communication.

23. The computer program product according to claim 17, wherein the first computer code performs a qualification test for all combinations of the plurality of radio communication systems.

24. A qualification system for testing a radio communication system including a plurality of radio terminals, and a representative terminal having a machine type identical to a machine type of the plurality of radio terminals, the system comprising:

means for executing a qualification test on the representative terminal so as to determine whether or not the representative terminal can be used in a desired radio communication system from a plurality of radio communication systems;

means for receiving a test success message indicating that the representative terminal passed the qualification test; and

means for notifying the test success message to the plurality of radio terminals.

25. The system according to claim 24, wherein

the executing means determines a control sequence for controlling a radio unit of the representative terminal, by which the representative terminal can pass the qualification test, and

the receiving means receives the control sequence from the measuring step, and the notifying means notifies the received control sequence to the plurality of radio terminals.

26. The system according to claim 24, wherein the notifying means notifies the plurality of radio terminals via a base station used for the desired radio communication system.

27. The system according to claim 24, wherein the notifying means notifies the plurality of radio terminals via a service center used for the desired radio communication system.

28. The system according to claim 27, wherein the service center notifies the test success message to the plurality of radio terminals by wireless communication.

29. The system according to claim 27, wherein the service center notifies the test success message to the plurality of radio terminals by wire communication.

30. The system according to claim 24, wherein the executing means performs a qualification test for all combinations of the plurality of radio communication systems.

31. A radio communication apparatus, comprising:

a radio unit configured to convert an analog radio signal into a digital signal;

a radio unit controller configured to control the radio unit;

a resource configured to communicate the digital signal with the radio unit, to perform a signal processing operation on the digital signal, and to reset a function of the signal processing operation; and

a resource controller configured to manage the resource,

wherein the radio communication apparatus is configured to transmit signals within a desired radio communication system out of a plurality of radio communication systems, when the radio communication apparatus receives an externally transmitted message indicating that the radio communication apparatus may transmit signals with respect to the desired radio communication system.

32. The apparatus according to claim 31, wherein the resource controller comprises:

a resource management table indicating a surplus of the resource;

a resource manager configured to allocated the surplus of the resource; and

a resource changing device configured to change a function of the resource.

33. The apparatus according to claim 32, wherein the resource manager updates a content of the resource management table in response to use states of the resource.

34. The apparatus according to claim 32, wherein the resource manager indicates an amount of resource required to realize a desirable function based upon information indicative of an arrangement used to realize a newly added function.

35. The apparatus according to claim 31, wherein the radio unit includes a radio function variable element that is variable in response to a control parameter.

36. The apparatus according to claim 35, wherein the radio function variable element is connected to the radio unit controller by a control line.

37. The apparatus according to claim 36, wherein the radio unit controller changes the control parameter of the radio function variable element using the control line so as to control the radio unit so the radio communication apparatus is configured to the desired radio communication system.

38. The apparatus according to claim 31, further comprising:

an antenna configured to transmit and receive radio signals; and

an analog switch disposed between the antenna and a power amplifier of the radio unit,

wherein the radio unit controller controls ON/OFF operations of the analog switch.